



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/659,406

09/10/2003

Robert Ryan Vallance

434-281

4637

1009

7590

06/17/2008

KING & SCHICKLI, PLLC
247 NORTH BROADWAY
LEXINGTON, KY 40507

EXAMINER

NGUYEN, HOANG M

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

06/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/659,406	Applicant(s) VALLANCE ET AL.	
	Examiner Hoang M. Nguyen	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's amendment dated May 29, 2008, has been fully considered.

Applicant amended claims 1, 12, to include the limitation "the stop slide in a first direction into a housing interior channel" and argued the applied references do not teach the claimed limitation. The Examiner agrees that the 102 rejections must be withdrawn due to this limitation. However, a new ground of rejection has been made.

The Examiner would like to comment about the issues raised by Applicant in the previous amendment.

About the request for showing the provisional application, even though said application is no longer used in the rejection, Applicant is reminded that all provisional applications can be viewed in USPTO Public PAIR.

Applicant made some comments about "piece meal examination" about that "into a housing interior channel" that was originally recited in claim 21. Please note the stop 16 in this application is simply an output member of the SMA actuator and is used to stop the movement of a rotary dispenser by locking into slots 58. Except for dependent claim 30, none of the claims recite the locking slot or the rotary dispenser, but only recite the linear actuator per se; therefore, any output member in the SMA actuator can be used to reject that stop in other claims. US 6762515 (Gummin et al) clearly discloses output elements 38, 63, from SMA actuators that meet that claimed limitation.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5, 7, 10, 11, 12, 14, 16, 18, 21, 23, are rejected under 35 U.S.C. 102(e) as being anticipated by US 6762515 (Gummin et al).

Gummin et al is relied upon to disclose SMA actuator comprising wire guide for SMA wires 42-43 or 101-104, and many SMA actuators with SMA wires 36, 61, operated together (note figures 2, 12, 15), the output elements 38, 63 can be used as stop or locking means as claimed and said elements are actuated by electric heater and pulled back by springs 39, 68 into the channels, e.g. 42.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-31, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 5749533 (Daniels) in view of U.S.6762515 (Gummin et al). Daniels discloses a rotary dispenser for a fishing reel having hub (spool 30), a SMA actuator being used as a brake for the dispenser including SMA wires 242, guiding channels (figure 19c), electric heater, retracting spring 256, output/locking/stopping element 244. Daniels does not disclose wire guides and many SMA actuators operated in series or parallel. Gummin et al is relied upon to disclose SMA actuator comprising wire guide for SMA wires 42-43 or 101-104, and many SMA actuators with SMA wires 36, 61, operated together (note figures 2, 12, 15), the output elements 38, 63 can be used as stop or locking means as claimed and said elements are actuated by electric heater and pulled back by springs 39, 68 into the channels, e.g. 42. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to replace the SMA actuator of Daniels by the SMA actuators as taught by Gummin et al because both SMA actuators are functionally equivalent, and for the purpose of guiding the wire, and to use many SMA actuators together in Daniels as taught by Gummin et al for the purpose of multiplying the output forces. Regarding specific SMA materials, or different wire guiding means such as bearings, locking means such as hub with slots, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to elect different types of SMA materials or guiding means, locking means with hub slots in Daniels for the purpose of achieving appropriate work outputs.

Art Unit: 3748

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hoang M Nguyen/
Primary Examiner, Art Unit 3748

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
6/17/2008